CLAIMS

What is claimed is:

1. An implantable gel material, said implantable gel material formed from a pressure solubilized dried gel, wherein said dried gel is hydrated by the addition of a solvating fluid, then said dried gel and solvating fluid form said implantable gel material upon the application of a pressurizing force.

2. The implant of claim 1 wherein said implantable gel material further comprises at least one biologically active agent.

3. The implant of claim 1 wherein said solvating fluid further comprises at least one biologically active agent.

4. The implant of claim 1 wherein said dried gel material further comprises at least one biologically active agent.

5. The implant of claim 1 wherein said solvating fluid comprises a biologically active agent.

6. The implant of claim 1 wherein said implantable gel material further comprises at least one filler material.

7. The implant of claim 1 wherein said solvating fluid further comprises at least one filler material.

8. The implant of claim 1 wherein said dried gel material further comprises at least one filler material.

9. The implant of claim 1 wherein said implantable gel material comprises at least one polymer.

10. The implant of claim 9 wherein said polymer comprises at least one natural polymer.

11. The implant of claim 9 wherein said polymer comprises at least one synthetic polymer.

12. An implantable biomaterial comprising a high surface area, fluid soluble material hydrated by a fluid and then solvated by a pressure solubilization process, wherein said implantable biomaterial becomes malleable.

13. The biomaterial of claim 12, wherein said rehydration step comprises adding less fluid than was removed during a dehydration step.

14. The biomaterial of claim 13, wherein said pressure solubilization process causes solubilization at a faster rate than occurs by capillary rehydration and stagnant solvation.

15. A process for manufacturing an implantable gel material comprising the steps of:

a. providing a biomaterial having a large surface area, and a fluid;
b. combining said biomaterial and fluid, wherein said surface area of said biomaterial becomes coated with said fluid; and
c. applying a pressurizing force to said combined fluid and biomaterial wherein said biomaterial collapses into a malleable gel.

16. The process of claim 15, wherein said implantable gel material further comprises at least one biologically active agent.

17. The process of claim 15, wherein said fluid further comprises at least one biologically

active agent.

18. The process of claim 15, wherein said biomaterial further comprises at least one biologically active agent.

19. The process of claim 15, wherein said fluid comprises a biologically active agent.

20. The process of claim 15, wherein said biomaterial further comprises at least one filler material.

21. The process of claim 15, wherein said fluid further comprises at least one filler material.

22. The process of claim 15, wherein said biomaterial further comprises at least one filler material.

23. The process of claim 15, wherein said implantable gel material comprises at least one polymer.

24. The process of claim 3, wherein said polymer comprises at least one natural polymer.

25. The process of claim 3, wherein said polymer comprises at least one synthetic polymer.

26. A process for manufacturing an implantable gel material comprising the steps of:

a. removing a fluid from a biomaterial solution or suspension having a first viscosity to leave a dry porous body presenting a large amount of surface area;
b. rehydrating said biomaterial with a volume of fluid less than the amount

removed during step a;

c. allowing said surface area of said biomaterial to become coated with said fluid; and applying a pressurizing force to the combined fluid and biomaterial, wherein said biomaterial collapses into a malleable gel having a second viscosity, wherein said second viscosity is greater than said first viscosity.

27. The process of claim 26, wherein said implantable gel material further comprises at least one biologically active agent.

28. The process of claim 26, wherein said fluid further comprises at least one biologically active agent.

29. The process of claim 26, wherein said biomaterial further comprises at least one biologically active agent.

30. The process of claim 26, wherein said fluid comprises a biologically active agent.

31. The process of claim 26, wherein said biomaterial further comprises at least one filler material.

32. The process of claim 26, wherein said fluid further comprises at least one filler material.

33. The process of claim 26, wherein said biomaterial further comprises at least one filler material.

34. The process of claim 26, wherein said implantable gel material comprises at least one polymer.

35. The process of claim 34, wherein said polymer comprises at least one natural polymer.

36. The process of claim 34, wherein said polymer comprises at least one synthetic polymer.

37. An implantable gel material, said implantable gel material formed by the process comprising the steps of:

a. providing a biomaterial having a large surface area, and a fluid;
b. combining said biomaterial and fluid, wherein said surface area of said biomaterial becomes coated with said fluid; and
c. applying a pressurizing force to said combined fluid and biomaterial wherein said biomaterial collapses into a malleable gel.

38. The implantable gel material of claim 37, wherein said implantable gel material further comprises at least one biologically active agent.

39. The implantable gel material of claim 37, wherein said fluid further comprises at least one biologically active agent.

40. The implantable gel material of claim 37, wherein said biomaterial further comprises at least one biologically active agent.

41. The implantable gel material of claim 37, wherein said fluid comprises a biologically active agent.

42. The implantable gel material of claim 37, wherein said biomaterial further comprises at least one filler material.

43. The implantable gel material of claim 37, wherein said fluid further comprises at least one filler material.

44. The implantable gel material of claim 37, wherein said biomaterial further comprises at least one filler material.

45. The implantable gel material of claim 37, wherein said implantable gel material comprises at least one polymer.

46. The implantable gel material of claim 45, wherein said polymer comprises at least one natural polymer.

47. The implantable gel material of claim 45, wherein said polymer comprises at least one synthetic polymer.

48. An implantable gel material, said implantable gel material formed by the process comprising the steps of:

a. removing a fluid from a biomaterial solution or suspension having a first viscosity to leave a dry porous body presenting a large amount of surface area;
b. rehydrating said biomaterial with a volume of fluid less than the amount removed during step a;
c. allowing said surface area of said biomaterial to become coated with said fluid; and
d. applying a pressurizing force to the combined fluid and biomaterial, wherein said biomaterial collapses into a malleable gel having a second viscosity, wherein said second viscosity is greater than said first viscosity.

49. The implantable gel material of claim 48, wherein said implantable gel material

further comprises at least one biologically active agent.

50. The implantable gel material of claim 48, wherein said fluid further comprises at least one biologically active agent.

51. The implantable gel material of claim 48, wherein said biomaterial further comprises at least one biologically active agent.

52. The implantable gel material of claim 48, wherein said fluid comprises a biologically active agent.

53. The implantable gel material of claim 48, wherein said biomaterial further comprises at least one filler material.

54. The implantable gel material of claim 48, wherein said fluid further comprises at least one filler material.

55. The implantable gel material of claim 48, wherein said biomaterial further comprises at least one filler material.

56. The implantable gel material of claim 48, wherein said implantable gel material comprises at least one polymer.

57. The implantable gel material of claim 56, wherein said polymer comprises at least one natural polymer.

58. The implantable gel material of claim 56, wherein said polymer comprises at least one synthetic polymer.

59. An implantable collagen gel material, said implantable gel material formed from a pressure solubilized dried gel containing a particulate ceramic filler, wherein said dried gel is hydrated by the addition of a solvating fluid, then said dried gel and solvating fluid form said implantable gel material with suspended ceramic particulate upon the application of a pressurizing force.

60. The implantable gel material of claim 59 further comprising an insoluble collagen fiber filler.